What is claimed is:

1. A method of controlling optimum writing power of a light source which emits a beam to write data to an optical medium in an optical drive, the method comprising:

detecting a first normalized write signal by using predetermined condition values while writing random data to a test area on the optical medium, and setting the first normalized write signal as a reference signal;

detecting a second normalized write signal using the predetermined condition values, while writing data to a user area on the optical medium; and

controlling the writing power of the light source based on a comparison of the second normalized write signal and the first normalized write signal.

2. The method of claim 1, wherein the predetermined condition values comprise:

a first gain and a first offset, which are used to control a level of a first signal obtained by sampling and holding a signal corresponding to a quantity of light reflected from the optical medium, and

a second offset and a second gain, which are used to control a level of a signal obtained by sampling and holding a signal obtained by monitoring the quantity of light radiated toward the optical medium by the light source.

3. The method of claim 1, wherein the first and second normalized signals are detected according to:

$$WRF\_Norm = \frac{WRF\_SH \times N - J}{MPDO\_SH \times M - I}$$

where WRF_Norm indicates the first or second normalized write signal, WRF_SH indicates a sampled and held write signal corresponding to a quantity of light reflected from the optical medium, N and J indicate a slope and an offset, respectively, which control a level of a sampled and held signal corresponding to the quantity of light reflected from the optical medium, J is an integer, MPDO_SH indicates a signal obtained by sampling and holding a signal obtained by monitoring a quantity of light radiated by the light source, M and I indicate a gain and an offset, respectively, which control a level of the signal obtained by sampling and holding the signal obtained by monitoring the quantity of light radiated by the light source, and I is an integer.

4. The method of claim 1, wherein the controlling of the writing power of the light source comprises determining a difference between the second normalized write signal and the reference signal where a value of the second normalized write signal is not approximate a value of the reference signal.

5. An apparatus for controlling writing power of a light source which emits a beam to write data to an optical medium in an optical drive, the apparatus comprising:

a first sampling and hold unit which samples and holds a signal corresponding to a quantity of light reflected from the optical medium;

a second sampling and hold unit which samples and holds a signal obtained by monitoring a quantity of light radiated by the light source; and

a controller which performs operations based on predetermined condition values, which are set taking into account the dynamic ranges of monitored writing power and a write radio frequency (RF) signal, deficiency in the dynamic ranges not being compensated for in hardware in the optical drive, and on the signals output from the first and second sampling and hold units, to detect a normalized write signal having a linear characteristic with respect to a writing power of the light source, and which controls the writing power of the light source in a write mode.

6. The apparatus of claim 5, wherein the predetermined condition values comprise a slope and a first offset, which are used to control a level of the signal output from the first sampling and hold unit, and a second offset and a gain, which are used to control a level of the signal output from the second sampling and hold unit.

7. The apparatus of claim 5, wherein the controller detects the normalized write signal by performing operations on an output signal of the first sampling and hold unit and an output signal of the second sampling and hold unit according to:

$$WRF\_Norm = \frac{WRF\_SH \times N - J}{MPDO\_SH \times M - I}$$

where WRF_Norm is the normalized write signal, WRF_SH is the output signal of the first sampling and hold unit, MPDO_SH is the output signal of the second sampling and hold unit, N and J indicate a slope and a first offset, respectively, which control a level of the output signal of the first sampling and hold unit, J is an integer, M and I indicate a gain and a second offset, respectively, which control a level of the output signal of the second sampling and hold unit, and I is an integer.

8. The apparatus of claim 5, wherein the controller:

sets a first normalized write signal, which is detected using the predetermined condition values while writing random data to a first area on the optical medium, as a reference signal, and

controls the writing power of the light source depending on a result of determining whether a second normalized write signal is approximate to the reference signal, the second normalized write signal being detected using the predetermined condition values while the controller writes data to a user area on the optical medium.

9. A method of controlling optimum writing power of a light source which emits a beam to write data to an optical medium in an optical drive, the method comprising:

writing first data to a test area of the recording medium based on predetermined conditions;

detecting a first normalized write signal while writing the first data to the test area, and setting the first normalized write signal as a reference level;

detecting a second normalized write signal while writing second data to a user area on the optical medium;

comparing a level of the second normalized write signal to the reference level; and

adjusting the writing power of the light source based on whether the level of the second normalized write signal is approximate the reference level.

10. An apparatus for controlling optimum writing power of a light source which emits a beam to write data to an optical medium in an optical drive, the apparatus comprising:

a first sampling and hold unit which samples and holds a signal corresponding to a quantity of light reflected from the optical medium during a write operation;

a second sampling and hold unit which samples and holds a signal obtained by monitoring a quantity of light radiated toward the optical medium during the write operation; and

a controller which controls the optical drive and the first and second sampling and hold units to:

acquire a first set of the first and second sampled and held signals with respect to light radiated toward a test area of the optical medium to establish a

reference signal level based on a ratio of the first sampled and held signal of the first set to the second sampled and held signal of the first set;

acquire a second set of the first and second sampled and held signals with respect to light radiated toward a user area of the optical medium during a write operation to determine a current signal level based on a ratio of the first sampled and held signal of the second set to the second sampled and held signal of the second set; and

alter the writing power of the light source where the current signal level and the reference level differ by more than a predetermined amount.

11. The method of controlling optimum writing power as claimed in claim 1, wherein the controlling further comprises changing the writing power where the first and second normalized write signals are not approximate in value.

12. The method of controlling optimum writing power as claimed in claim 1, wherein the predetermined condition values are set taking into account dynamic ranges of monitored writing power and a write radio frequency (RF) signal, and deficiency in the dynamic ranges not being compensated for in hardware in the optical drive.

13. The method of claim 1, further comprising storing a value of the first normalized write signal.

14. The apparatus of claim 5, further comprising a memory to store the normalized write signal.

15. The apparatus of claim 14, wherein the memory comprises a static random access memory.

16. The apparatus of claim 5, wherein the predetermined condition values are implemented in firmware.

17. The apparatus of claim 5, wherein the predetermined condition values are implemented in software.